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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,777

06/23/2006

Martin de Vries

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ERICSSON INC.  
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EXAMINER

JAMA, ISAAK R

ART UNIT

PAPER NUMBER

2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,777	<b>Applicant(s)</b> DE VRIES, MARTIN	
	<b>Examiner</b> ISAAK R. JAMA	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/23/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 14-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/23/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

### Status of Claims

Claims 11-13 and 20 has been deleted and claims 1-10 and 14-19 are pending.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,146,167 (Tanabe) in view of U.S. Patent Application Publication Number 2003/0108027 (Kim et al.).
3. Regarding claims 1, 8, 14 and 17, Tanabe teaches a cellular communication system, the system accommodating communication and controlling a configuration of radio links in a radio network **[Figure 1]**, comprising a network controller **[Figure 1, RNC – radio network controller, # 112]**, mobile units **[Figure 1, Mobile station, # 101]** and base stations **[Figure 1, Node-B, # 103]**, the system being arranged for: maintaining, in the mobile unit and in the base station, transferring messages between the network controller, the base stations and the mobile units **[Figure 1, #s 102 and 11]**, the messages being transmitted at a transmission time code **[abstract]**, the messages including a change command for changing a configuration of radio links, and a reconfiguration command for changing a current configuration state of the

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configuration of radio links to a next configuration state of the configuration of radio links at a selected future time code, which configuration change involves at least one mobile unit and at least one base station, determining a prepared reconfiguration period, which period starts at the transmission time code of the reconfiguration command, and ends at the selected future time code, and adding a prepared reconfiguration period indicator to the change command **[Column 1, lines 29-43]**. But Tanabe fails to specifically disclose a synchronization counter indicating time codes for synchronization of functions across the system. Kim teaches an apparatus and method for minimizing a **[Figure 1, page 2, paragraph 0015]**. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the synchronization counter of Kim in the system of Tanabe in order to easily resynchronize a mobile radio device during handoff.

4. Regarding claim 2, Tanabe further teaches that the synchronization counter (CFN) has a synchronization cycle indicated by a limited number of the time codes (CFNs), and the change command comprises a reference time code (CFN) for providing a reference time in the synchronization cycle, and the prepared reconfiguration period indicator is indicating that the reference time code is indicating the selected future time code **[Column 8, lines 42-54]**. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the synchronization counter of Tanabe in the system of Lee in order to perform handoff without disruption.

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5. Regarding claim 3, Tanabe further teaches that the prepared reconfiguration period indicator comprises the transmission time code of the reconfiguration command **[Figure 6, column 1, lines 40-43]**.

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,146,167 (Tanabe) in view of U.S. Patent Application Publication Number 2003/0108027 (Kim et al.) and further in view of U.S. Patent Number 6,892,071 (Park et al.).

7. Regarding claims 4 and 5, Tanabe and Kim has been discussed above. But the combination of Tanabe and Kim fail to teach that the prepared reconfiguration period indicator is selectively added to the change command in the event that a change command is to be transferred in the prepared reconfiguration period. Park teaches a handover method in wireless telecommunication system supporting an uplink synchronous transmission scheme, whereby a radio network controller requests the mobile station to perform reconfiguration of a physical channel by transmitting a physical channel reconfiguration message having the scrambling code for the USTS, the channel code, initial synchronization information for the target BTS to the MS through the source BTS. The MS establishes a new radio channel code based on a USTS code, and then transmits a physical channel reconfiguration complete message to the RNC **[Figure 1, column 2, lines 7-15]**. In addition, and in regard to claim 6, Park teaches the change command is a link change command for adding a radio link to the configuration **[Figure 4B, # 401]**. Furthermore, and in regard to claim 7, Park also teaches the changing the current configuration state to the next configuration state

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comprises changing a compressed transmission mode in a radio link **[Page 2, paragraph 0016]**. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the method of Park in the combined system of Tanabe and Kim in order to enhance handoff of the mobile.

8. Claims 9,10,15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,146,167 (Tanabe) in view of U.S. Patent Application Publication Number 2003/0108027 (Kim et al.) and further in view of U.S. Patent Number 7,020,108 (Virtanen).

9. Regarding claims 9, 15 and 18, Tanabe and Kim has been discussed above. But the combination of Tanabe and Kim fail to teach teaches that in the event that the future selected time code has not yet passed, executing the change command according to the current configuration state, and, in the event that the future selected time code has passed, executing the change command according to the next configuration state. Virtanen teaches a method for preparing an inter-frequency handover, a network element and a mobile station, whereby when a transmission gap period (i.e. selected future time) is checked if the current transmission gap is the last in the current transmission gap period. If it is not, then frames are transmitted/received similarly as in continuous mode operation, until the next transmission gap within the current transmission gap period is reached. If the transmission gap is the last one within the current transmission gap period, then it is checked if the current transmission gap period is the last in the compressed mode. If the compressed mode still continues, then again frames are transmitted/received similarly as in continuous mode, until the first

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transmission gap in the next transmission gap period is reached. If the transmission gap period(s) is (are) already repeated as many times as specified when entering the compressed mode operation, then the compressed mode transmission is terminated **[Column 1, lines 14-29]**. In addition, and in regarding to claims 10, 16 and 19, Virtanen further teaches that the synchronization counter has a synchronization cycle indicated by a limited number of time codes, the change command comprises a reference time code for providing a passed reference time in the synchronization cycle, and the prepared reconfiguration period indicator is indicating that the reference time code is indicating the selected future time code **[Column 10, lines 55-61; i.e. the transmission gap periods, the order for their cyclical repetition and, especially, the number of the transmission gaps within each transmission gap period and the duration of each gap are defined]**, and that the method further comprising detecting whether a current time code has passed the future selected time code, and detecting whether the current time code is in a part of the synchronization cycle covered by the prepared reconfiguration period **[Figure 6, #s 602-611; columns 10 and 11, lines 66-67 and 1-29]**. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the method of Virtanen in the combined system of Tanabe and Kim in order to initiate a handoff of a mobile without any disruption in the communication.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication Number 2004/0156324 (Steudle) teaches a method and arrangement for increasing the versatility of compressed mode for inter-system measurements. U.S. Patent Application Publication Number 2004/0009767 (Lee et al.) teaches a radio link parameter updating method in mobile communication systems. U.S. Patent Number 6,810,019 (Steudle) teaches a method for reducing interference in inter-frequency measurements. U.S. Patent Number 7,190,944 (Kim et al.) teaches a method for performing handover based compressed mode and common frequency of neighbor cells. U.S. Patent Number 6,868,075 (Narvinger et al.) teaches a method and apparatus for compressed mode communication over a radio interface. U.S. Patent Number 7,376,424 (Kim et al.) teaches a method for seamless inter-frequency hard handover in radio communication systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAK R. JAMA whose telephone number is (571)270-5887. The examiner can normally be reached on 7:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IRJ/

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617